March/April 2003

THE MOBILITY FORUM

Air Mobility Command's Magazine

Flying Operations in the AOR

2002 Individual Safety Award Winners

How to Combat Motorcycle Fatalities

THE
MOBILITY FORUM

March/April 2003 Volume 12 No. 2

In This Issue

About The Cover...

Master Sgt. Neil Webb, 90th Medical Group, lays low with other MDG personnel during a simulated chemical attack at the North Star training encampment near Vandenberg Air Force Base, Ca., during Foggy Shores 02-06, on Aug. 28, 2002.

Cover photo by Staff Sgt. Lee A Osberry Jr.

The Mobility Forum is available on the web at

https://www.amc.af.mil/se/ser/mobilityforum.htm

Comments/Feedback: mobilityforum@scott.af.mil

REGULAR FEATURES

DIRECTOR'S Corner

All indicators show AMC will have some record high activity levels as you read this. All career fields are continuing to perform at exceptional levels as we move forces and supplies around the world. Many Air Mobility warriors are deployed. Our duties demand more time, and less time is left for home life. We have lost three team members this fiscal year—all off-duty. Two were winter driving accidents by experienced winter drivers. We can and will prevail in our war on terrorism, but we need to survive, both on and off-duty. At work we have many checks and balances to encourage the appropriate "knock it off" call when people are not prepared to do the job safely. But unfortunately, those checks and balances are almost all in the head of the individual when we are off-duty. With our current operations tempo, our baseline fatigue level is higher than pre 9/11. Adding, for example, long driving plans after a full duty day may cross the line from safe to unsafe behavior. Here's a suggestion: Use the same rules off duty as on. If you would recommend to your boss to "knock it off" after a certain amount of duty day, why not use the same rule personally? Please be wary of long driving trips when you start tired, especially if weather or night driving is involved. We all need to be here when we win the war on terrorism.

On another note, the January/February issue was difficult to read due to the frequent typographic errors. We learned from our mistake and have corrected our review process to prevent this in the future. You should have a new copy without the errors, as the entire issue was reprinted in early February.

You will see a new magazine look starting this issue. The goal remains the same: mishap prevention. The focus will tighten to air mobility in all phases: flight operations and ground operations. Some features, such as Pope's Puns and C.R. Terror, will be retired and new features will be introduced. Please check out the centerfold and the expanded Quickstoppers in this issue. Our objective is an interesting magazine for all air mobility readers. If you don't want to read the magazine, we are wasting our time.

You can help. Please let us know how we're doing. This issue includes a survey card. Email comments are welcome anytime: mobilityforum@scott.af.mil. We need stories from the field. Many of you have experienced close calls, either at work or home. Please share your experience so others can learn. Authors of any published article will receive some small item of appreciation and my personal thanks. Be first in your unit to boast as a published author.

And finally, let's be careful out there.

Col Ron Bean

Indoor Air Quality

by John Schatz
Safety Management Consultant

As buildings become more energy efficient, which is a good thing, they also become more airtight. With efficient and airtight structures, recycled air is trapped inside the building allowing contaminants to become more concentrated than in the ambient outside air. This can lead to indoor air issues. Although there are a lot of different contaminants that affect people, this article deals with some of the more common problems faced today: carbon monoxide, cigarette smoke, mold, and sewer odors.

Carbon Monoxide

Carbon monoxide (CO) is known as the silent killer as it is an odorless and colorless asphyxiate. It is the product of incomplete combustion, usually from a faulty gas heating system; however, it can be sucked in outside air dampers that are located in parking garages or shipping loading docks. Carbon monoxide affects tissues with the highest oxygen needs first, including the myocardium, the brain, and exercising muscles. Symptoms may mimic influenza and include fatigue, headache, dizziness, nausea, vomiting, and cognitive impairment. Studies involving controlled exposure have also shown that CO exposure shortens time to the onset of angina in exercising individuals with heart disease and decreases exercise tolerance in those with chronic obstructive pulmonary disease. Since CO poisoning can mimic influenza, health care providers should be suspicious when an entire family exhibits such symptoms at the start of the heating season and symptoms persist even with medical treatment and time.

To prevent CO poisoning from happening, make sure professionals check the heating systems perdiodcally and check placement of outside air dampers. A CO monitoring system with an alarm would also be a good idea.

Environmental Tobacco Smoke

Environmental tobacco smoke (ETS) is a major source of indoor air contaminants. The ubiquitous nature of ETS in indoor environments indicates that some unintentional inhalation of ETS by nonsmokers is unavoidable.

Environmental tobacco smoke (ETS) is a major source of indoor air contaminants.

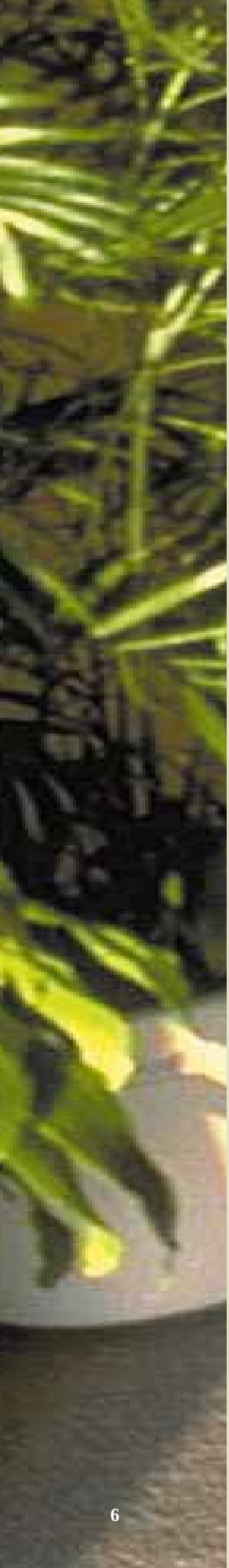
Environmental tobacco smoke is a dynamic, complex mixture of more than 4,000 chemicals found in both vapor and particle phases. Many of these chemicals are known toxic or carcinogenic agents. Nonsmoker exposure to ETS-related toxic and carcinogenic substances will occur in indoor spaces where there is smoking.

All the compounds found in "mainstream" smoke, the smoke inhaled by the active smoker, are also found in "sidestream" smoke, the emission from the burning end of the cigarette, cigar, or pipe. ETS consists of both sidestream smoke and exhaled mainstream smoke. Inhalation of ETS is often termed "secondhand smoking", "passive smoking", or "involuntary smoking."

The role of exposure to tobacco smoke via active smoking as a cause of lung and other cancers, emphysema and other chronic obstructive pulmonary diseases, and cardiovascular and other diseases in adults has been firmly established. Smokers, however, are not the only ones affected.

The U.S. Environmental Protection Agency (EPA) has classified ETS as a known human (Group A) carcinogen and estimates that it is responsible for approximately 3,000 lung cancer deaths per year among nonsmokers in the United States. The U.S. Surgeon General, the National Research Council, and the National Institute for Occupational Safety and Health also concluded that passive smoking can cause lung cancer in otherwise healthy adults who never smoked.

Fortunately, this problem is lessening with the Air Force's smoking regulations on base and with many businesses voluntarily making their work places a "no smoking" environment. Many places have made designated areas outside where people can take a smoke break, but if this area is where the building gets its fresh air make up then the harmful smoking substances are sucked into the building. Businesses that allow smoking in certain areas of the building



should place special filters (e.g., HEPA) in their HVAC units so that the smoke is absorbed into the filter and does not get spread throughout the whole building.

Mold

Molds are part of the natural environment. Outdoors, molds play a part in nature by breaking down dead organic matter such as fallen leaves and dead trees; but indoors, mold growth should be arrested. Molds reproduce by means of tiny spores. These spores are invisible to the naked eye and float through outdoor and indoor air. Mold may begin growing indoors when mold spores land on surfaces that are wet. There are many types of mold, and none of them will grow without water or moisture.

Molds are usually not a problem indoors, unless mold spores land on a wet or damp spot and begin growing. Molds have the potential to cause health problems. Molds produce allergens (substances that can cause allergic reactions), irritants, and in some cases, potentially toxic substances (mycotoxins). Inhaling or touching mold or mold spores may cause allergic reactions in sensitive individuals. Allergic responses include hay fever-type symptoms, such as sneezing, runny nose, red eyes, and skin rash (dermatitis). Allergic reactions to mold are common. They can be immediate or delayed. Molds can also cause asthma attacks in people with asthma who are allergic to mold. In addition, mold exposure can irritate the eyes, skin, nose, throat, and lungs of both mold-allergic and non-allergic people. Symptoms other than the allergic and irritant types are not commonly reported as a result of inhaling mold.

It is impossible to get rid of all mold and mold spores indoors as some mold spores will be found floating through the air and in common dust. The key to stopping mold is moisture: no moisture, no mold growth. To clean small areas of non-porous materials, scrub the affected area with a detergent or bleach, then completely dry the area. Absorbent or porous materials, such as ceiling tiles and carpet, may need to be thrown away if they become moldy. Mold can grow on or fill in the empty spaces and crevices of porous materials, so the mold may be difficult or impossible to remove completely. If you have a large area (greater than 10 square feet) of mold to clean, consult the U.S. Environmental Protection Agency (EPA) guide: *Mold Remediation in Schools and Commercial Buildings*. Although focused on schools and commercial buildings, this document is applicable to other building types. It is free and available to the public by calling the EPA Indoor Air Quality Information Clearinghouse at (800) 438-4318. You may want to consider employing a contractor to do the clean up; however, make sure the contractor has experience cleaning up mold. If the mold is in the HVAC then have an experienced HVAC representative clean the unit and treat it with a mold inhibitor.

To prevent reoccurrence, repair any leaking plumbing and seal any leaks where water may intrude. Adjust the HVAC system to a humidly level that does not promote mold growth, i.e., 30 -50 %.

Sewer smells

Sometimes a person may notice a faint but very distinct sewer odor in buildings. Dried out “S” or “P” sewer traps often cause the problem. This situation is easily remedied by adding water back to the traps, thus keeping the sewer gas from entering the building.

Conclusion

Indoor air-quality problems come in all shapes and sizes. The best approach is a proactive one by controlling humidity, changing filters, and keeping your HVAC in good repair. If personnel report a problem, try to ascertain their symptoms and then look for obvious solutions. If the solution is not forthcoming then consider hiring a professional to aid you.

1st Place **2nd Place** **3rd Place**

$300 **$200** **$100**

Writing Contest

SUSPENSE: Postmarked NLT 30 April 2003

FORMAT: Identify entries by title only. Include author's name, rank (when applicable), unit, home address, DSN, Commercial telephone and fax numbers, and e-mail address (if applicable). You may submit any photos/graphics relating to your entry, if available.

LENGTH: Original, previously unpublished fiction or nonfiction. Entries should not exceed four single-spaced pages, including photographs/graphics.

CONTENTS: Entries should contain one or more of the following messages: safety, risk management, CRM, tanker and airlift operations, and SAC/MAC/AMC heritage. Of special interest are articles that share the experience of an emergency situation in flight and the events that followed. Articles may be fictional or describe true accounts.

ELIGIBILITY: Military and civilian employees of the Department of the Air Force and Air Reserve Components. All other entries are judged under a Special Category.

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~2002~
Air Mobility Command
Annual Safety Award Winners

Safety Officer of the Year
Captain Michael D. Sundsted
6th Airlift Squadron
McGuire AFB, New Jersey

Safety Officer of the Year - Additional Duty
Captain Jason L. Willis
92d Air Refueling Squadron
Fairchild AFB, Washington

Flight Safety NCO of the Year
MSgt Dennis J. Caskey
92d Air Refueling Wing
Fairchild AFB, Washington

Flight Safety NCO of the Year - Additional Duty
TSgt Susan C. Brown
89th Airlift Wing
Andrews AFB, Maryland

Ground Safety NCO of the Year
MSgt Burrell E. Hancock
728th Air Mobility Squadron
Incirlik AB, Turkey

Ground Safety NCO of the Year - Additional Duty
TSgt T. Shea Saul
437th Maintenance Squadron
Charleston AFB, South Carolina

Explosive Safety Individual of the Year
SSgt David G. York, Jr.
436th Airlift Wing
Dover AFB, Delaware

Nuclear Surety Individual of the Year
Major John E. Vaughn
62d Airlift Wing
McChord AFB, Washington

Weapons Safety Individual of the Year
David G. York, Jr.
436th Airlift Wing
Dover AFB, Delaware

Safety Civilian of the Year
Mr. Thomas N. Diveley
305th Air Mobility Wing
McGuire AFB, New Jersey

~2002~
Air Mobility Command
Annual Safety Award Winners

Chief of Safety Aircrew of Distinction Award
Crew of "Reach 2294"
61st Airlift Squadron
Little Rock AFB, Arkansas

Distinguished Ground Safety Award - Group
615th Air Mobility Operations Group
Travis AFB, California

Distinguished Explosive Safety Award
22d Air Refueling Wing
McConnell AFB, Kansas

Best En Route Support Unit Award
733d Air Mobility Squadron
Kadena AB, Japan

Distinguished Nuclear Surety Safety Award
62d Airlift Wing
McChord AFB, Washington

Distinguished Flying Unit Safety Award
19th Air Refueling Group
Robins AFB, Georgia

Distinguished Ground Safety Award - Wing
437th Airlift Wing
Charleston AFB, South Carolina

Operational Risk Management Achievement Award
463d Airlift Group
Little Rock AFB, Arkansas

Safety Office of the Year
22d Air Refueling Wing
McConnell AFB, Kansas

Beyond the Obvious:

How to Combat Motorcycle FATALITIES

by Rita Hess

Motorcycle mishaps resulting in Air Force fatalities are up drastically over last year according to the Air Force Safety Center. A Ground Mishap Summary covering the 101 Critical Days of Summer Campaign for 2002 reveals some chilling details.

June 8: A SSgt and passenger attempted to pass a van on the left. The van then made a left turn and the SSgt's motorcycle struck the van's driver side door. The SSgt was ejected, resulting in fatal injuries.

June 11: As a TSgt approached a cross street, a car traveling the opposite direction turned left in front of the motorcycle. The TSgt struck the car, subsequently receiving fatal injuries.

July 21: A motorcycle rider was returning to base on the freeway and lost control of his motorcycle, striking the guardrail and sustaining fatal injuries.

August 5: While operating his motorcycle on a curvy, narrow two lane road, the airman crested a hill and failed to navigate a right hand turn, lost control, crossed the centerline and struck a guardrail on the opposite side of the road. The airman died less than a month later.

August 20: Member attempted to avoid collision with a pickup that pulled out in front of him. The airman struck the rear of the truck, causing his gas tank to rupture. As the member and his motorcycle continued to slide, a spark ignited the gas. The airman sustained a fractured leg and second and third degree burns. He was pronounced dead the following day.

A closer look at the personnel involved in these and other fatal accidents during the past 12 months reveals that most airmen are doing some things right: staying sober, wearing proper equipment, and attending training. However, they're doing other things wrong. **Dead wrong.**

Avoiding an Accident Defensive Driving

No way, you argue. I'm mature, sensible, and mentally ready to defend our country. Great. But what about the

other people you meet on the road? Is it possible that other people are distracted even though you aren't? The vehicle you meet at the next intersection might be Mr. Pearson's uncle returning from the cemetery where he buried his wife last week. Is he sobbing about his upcoming 50th wedding anniversary or paying attention to the stoplight? As he reaches into his hip pocket for a handkerchief, will he notice the light turned red?

Ordinary events cause accidents, too. Is the young woman pulling out of the bank parking lot busy talking to her assistant on a cell phone? Is she turning around to settle a dispute between her children in the back seat?

No matter how alert **you** are, it's impossible to predict the mental state or the physical condition of other people sharing the road. National Highway Traffic Safety Administration (NHTSA) statistics show that in the general population, approximately two-thirds of fatal motorcycle crashes involve another vehicle, and most of those accidents occur at intersections. The motorist either does not see the oncoming motorcycle at all or does not see the motorcycle in time to avoid a crash. Rather than not know for sure, simply assume that drivers either don't see you or won't respect your presence on the road - and drive accordingly.

- Turn your lights on during the day.
- Wear a brightly colored article of clothing or attach a fluorescent flag to your antenna.
- Signal your intentions well in advance.
- Know where your horn is and don't be afraid to use it.

While you can't always know what **will** happen, you can prepare yourself for things that **might** happen.

Remember that knowing what's ahead doesn't just mean the car directly in front of you; therefore, you should glance to your left, to your right, behind you, and look several blocks in the distance. You should always watch for anything that poses a *potential* danger. A little boy playing fetch with his new dog in the front yard one minute might dart into the street the next minute. A laborer from Move-A-Lot Transfer and Storage loading boxes into a moving van might suddenly lose his balance and stumble into your lane of traffic.

While you can't always know what will happen, you can prepare yourself for things that might

On the highways outside of town, leave plenty of cushion between you and the vehicle in front of you. A car that swerves may be trying to avoid a pothole or debris; either one of these situations can be deadly to a motorcycle rider. Give yourself room to safely decelerate and avoid the obstacle.

Pay attention to what is going on behind you. A teenage boy who's late for football practice can quickly approach you from behind, in which case you should slow down and pull slightly to the right so he can pass.

When and where you travel can present unique hazards, so plan road trip destinations carefully. A weekend ride to Yellowstone or Mount Rushmore can be awesome, but other potential sightseers may be retired folks who are learning to maneuver a 50' recreational vehicle down a curvy mountain road. It's fine for bikers and tourists to share the same roads, but the ever-increasing baby boomer population may not see as well at night, they may be distracted by squabbling grandchildren, or they may simply be fatigued. Have fun on your bike, but be wary of other motorist's possible physical impairments.

Friday and Saturday nights present a different kind of danger, as do many holiday weekends. NHTSA reports that of the 3,181 motorcyclists who died on the nation's roadways in 2001, **41 percent** were impaired with a blood alcohol concentration of .08 or greater - the legal limit of impairment in many states. The Air Force Safety Center's report shows that airmen are wisely choosing to stay sober when riding, which is good. Just remember: not everyone makes the same choice.

Whether you are cruising across town or across the country, always pay attention to weather conditions. Even a light rain is enough to make oil-slicked highways more dangerous.

Bike Conditions and Modifications

You're aware, you're sober, and the weekend weather looks great. But before leaving home, you decide to put new tires on the bike. Smart move?

Maybe not.

After-market modifications - sometimes as simple as a set of new tires - can change the way a motorcycle handles. Towing a trailer or adding saddlebags can also change a bike's operating characteristics, so start with short rides on less crowded roadways until you feel comfortable with the changes you make.

Finally, never depart on a lengthy trip without preparing for a breakdown. Being stranded on the side of a narrow hillside road can be extremely dangerous, but so can standing on the shoulder of a busy interstate. Take a towrope, flashlight, cell phone, flare, fluorescent jacket, and a small tool pack made for your bike. Carry tire sealant, spare fuses, and extra safety goggles in case your helmet face shield accidentally breaks.

Surviving an Accident Equipment

Of course, it's possible to make all the right decisions and still be involved in a motorcycle accident. If an accident does happen, you had better be in good physical condition if you hope to survive. You'd better be lucky, too. According to the NHTSA, more than **80 percent** of all reported motorcycle crashes result in injury or death to the motorcyclist. It isn't hard to figure out why. Unlike a car, motorcyclists have no airbags, seat belts, or a steel frame to protect them. A rider thrown from a bike in an accident hits *something* - the ground, a tree, a guardrail, another vehicle - could be anything. So the very thing riders love about being on a bike - exposure to the great outdoors - is usually what kills them.

Ask yourself how it would feel to jump out of a vehicle that is moving 15 miles per hour. What about 40? What about 65? Imagine the worst injuries possible, and they probably aren't as severe as the ones that cycle riders actually incur at those speeds. And while it's common - even fashionable - to wear leather jackets, boots, and gloves when riding, some bikers still resent mandatory helmet laws.

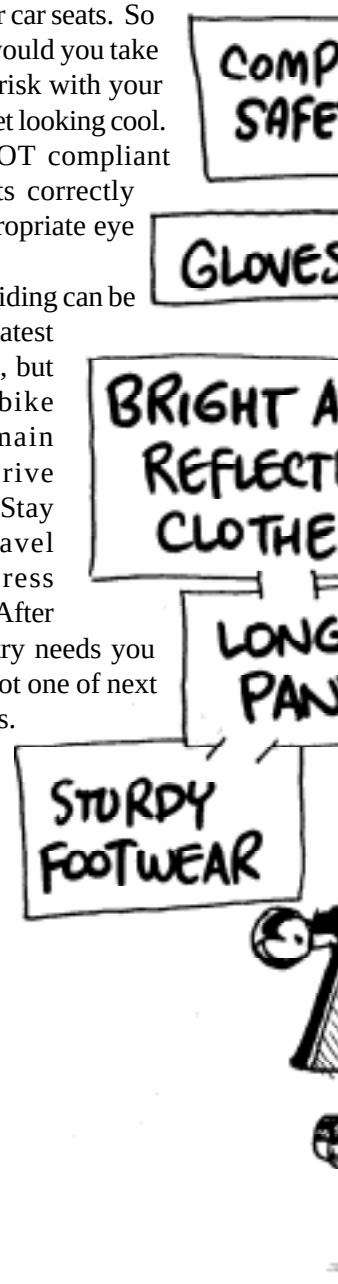
"I'm an adult and can make my own decisions," writes one young man in an Internet chat room. (You have to wonder if he's decided where he'll be buried or if his grief-stricken parents will have to make that decision).

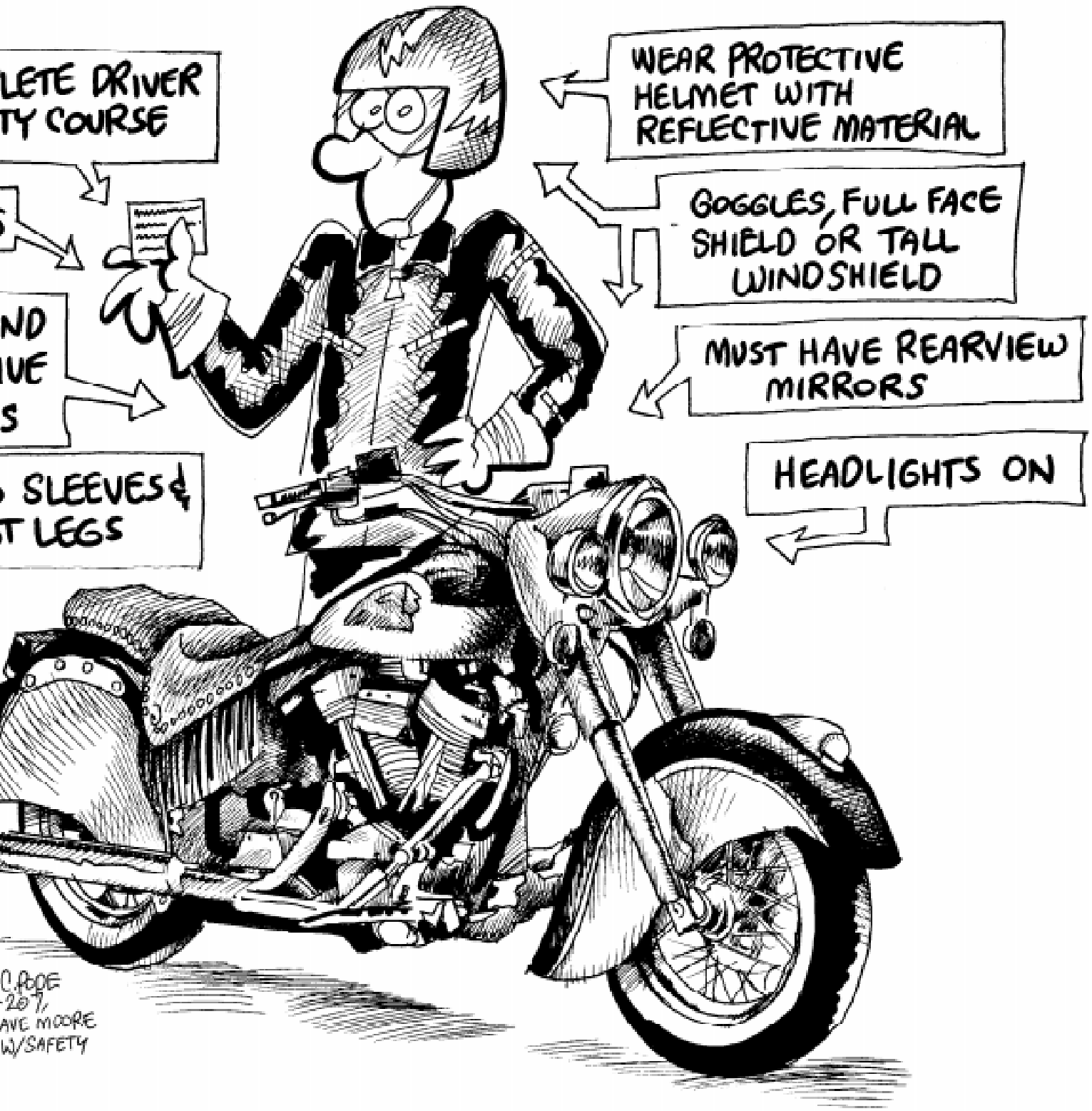
"Helmets block my view," adds another. "Besides, "I don't look cool in a helmet." (Looking dead isn't cool, either).

Many of the accident victims reported for 2002 by the Air Force Safety Center died even though they were wearing helmets. Seems reasonable, then, to assume that helmets don't save lives. But if your body leaves a motorcycle at a high rate of speed, then bounces on the asphalt several times before striking a tree or being run over by oncoming traffic, you probably wouldn't survive the physical injuries anyway, even if your brain remains intact.

In most minor crashes, however, helmets **do** save lives and they **do** increase the likelihood of recovery. NHTSA statistics, in fact, reveal that motorcyclists without helmets are **three times** as likely to suffer a brain injury compared to those with helmets. You wouldn't ask your mom to jump from a plane without a parachute. You wouldn't take a family vacation without strapping your children in their car seats. So why on earth would you take such a foolish risk with your *own* life? Forget looking cool. Invest in a DOT compliant helmet that fits correctly and offers appropriate eye protection.

Motorcycle riding can be one of the greatest thrills on earth, but enjoy your bike safely. Remain aware. Drive defensively. Stay sober. Travel prepared. Dress appropriately. After all, your country needs you to be a hero - not one of next year's statistics.

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MUST HAVE REARVIEW MIRRORS
HEADLIGHTS ON
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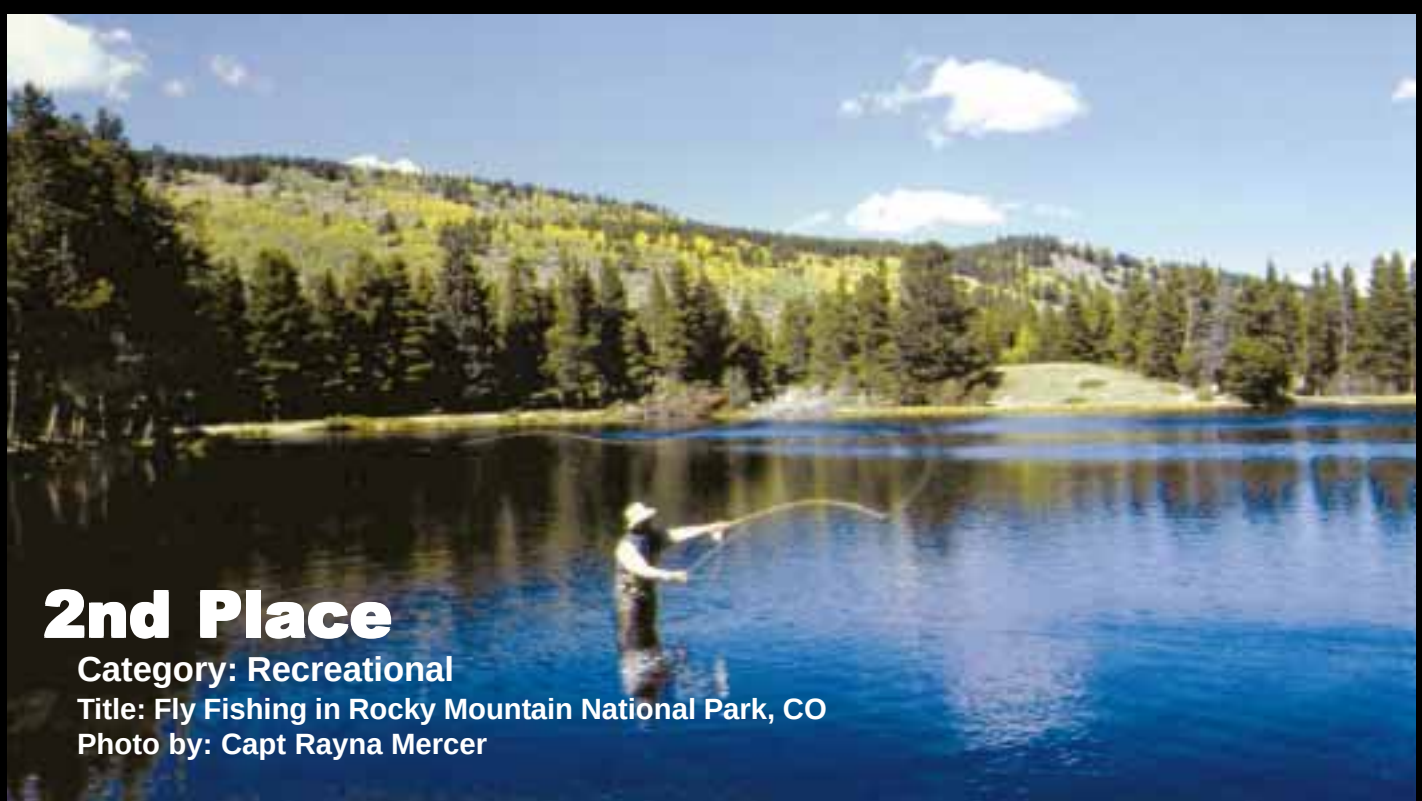
AVE MOORE
W/SAFETY

Photo Cont

2nd Place

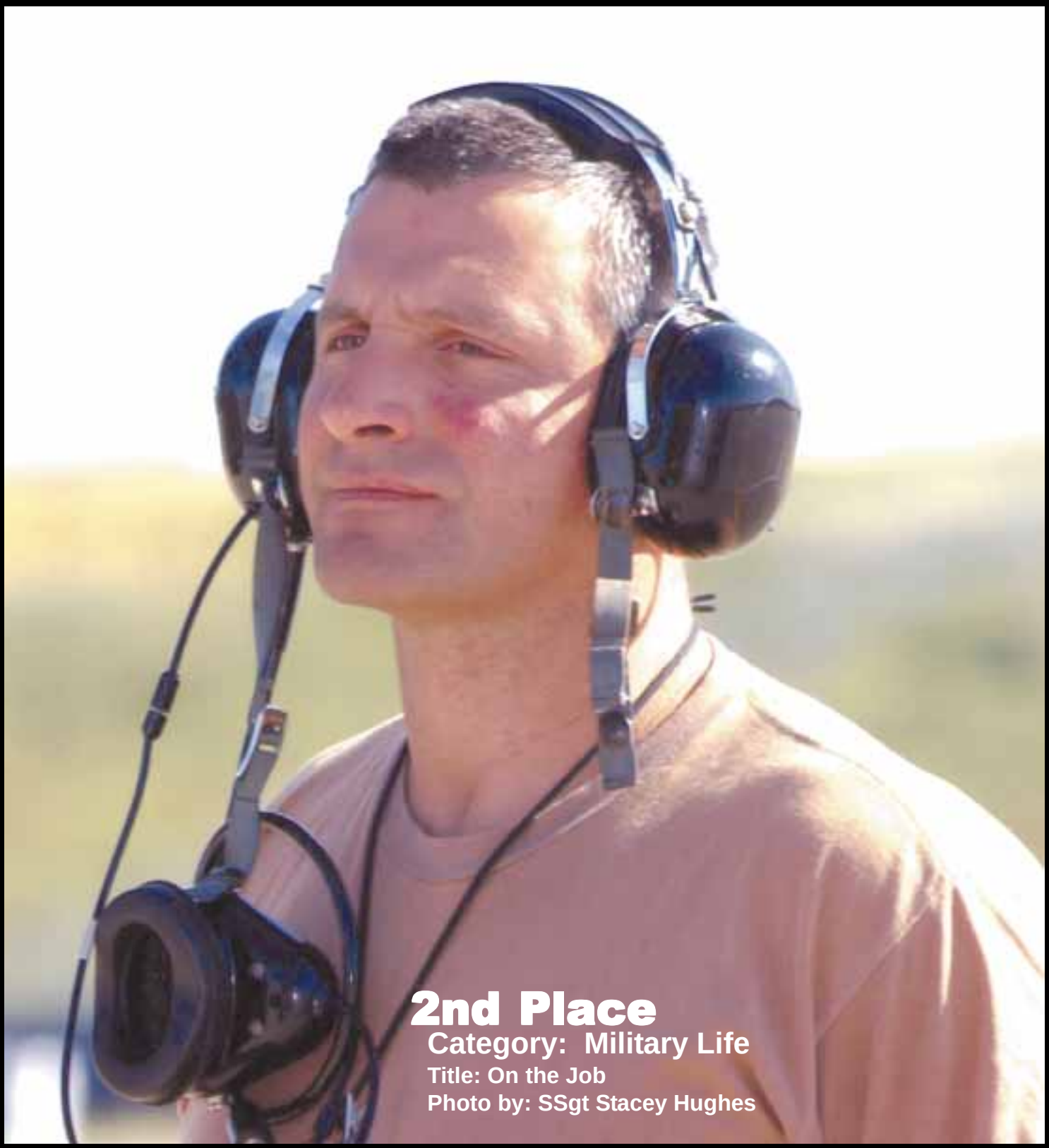
Category: Aircraft
Title:"Rescue Team"
Photo by: SSgt Chanthala Vongdara



2nd Place

Category: Recreational
Title: Fly Fishing in Rocky Mountain National Park, CO
Photo by: Capt Rayna Mercer

est Winners



2nd Place

Category: Military Life

Title: On the Job

Photo by: SSgt Stacey Hughes

Flying Operations in the AOR

By
Maj Chris Carlsen, HQ AMC/SEF

Two U.S. Air Force maintenance members stand beside a C-17 Globemaster III at sunset Mar. 28, 2002. C-17's are one of the main aircraft for transporting cargo down range during Operation Enduring Freedom. This was after a long day of work on the flightline at Rhein Main Air Base Germany.

Photo by: Staff Sergeant Ricky A. Bloom, 1st Combat Camera Squadron

The last year was a challenging one for the Air Force in regards to safety. The Air Force and AMC experienced numerous flight mishaps. Even though we are operating at a high ops tempo in a hostile environment, Air Mobility Command did not experience any losses directly from hostile actions. Yet, AMC has had some safety issues come to light. In the AOR we've had numerous Hazardous Air Traffic Reports (HATR) filed, concerns regarding airfield operations and two C-17 landing mishaps. Despite all of these issues our safety record in the AOR is very good considering the high ops tempo. However, more can be done.

AMC has taken a multi-pronged approach in addressing these issues to improve operations and prevent further incidents. First, the HATR and accident investigation reports are being used to document and fix problems.

Second, AMC sent representatives to the AOR to observe and gather information about operations, hazards, and actual conditions in the area. And finally, we asked NAF's and other MAJCOM's for feedback on what they believe can be done to reduce the risk from our operations.

A coalition forces E-3 AWACS aircraft receives fuel during a mission over Afghanistan from a KC-135R Stratotanker from the 384th Air Expeditionary Wing on Nov. 20, 2002. Aerial refueling missions keep coalition forces in-flight around the clock during Operation Enduring Freedom.
Photo by: SSgt Jerry Morrison, 1st Combat Camera Squadron

As Operation Enduring Freedom began, the AOR airspace became very busy, very quickly. Along with the increase in sorties, the area of operations has limited radar control capability. This fact, along with confusing SPIN's resulted in numerous HATR's being filed and a few close calls. Thanks to alert aircrews and the ability of TCAS, no collisions have occurred. For example, a KC-135 and B-52 operating at the same altitude would have met at a point in space, but because of the KC-135's TCAS a collision was avoided. To avoid further incidents, the B-52's have revised their altitudes for ingress and egress. Through coordination with CENTAF and the DIRMOBFOR, improvements in airspace management and SPINS were developed to further reduce close calls. Dedicated routing was developed that included airspace separation as well as lateral separation. Also, emphasis was placed on training aircrews on proper procedures for operations in the AOR and alerting them to the hazards. As a result of changes made to airspace management, the numbers of HATR's have significantly decreased. In the first six months of operations, Nov 01 to Apr 02, there were 10 HATR's reported concerning near misses with AMC aircraft. From Apr 02 through Jan 03, there have only been 4 HATR's reported—a significant improvement.

Besides the airspace above the AOR, there were serious safety issues with the area on the ground.

Besides the airspace above the AOR, there were serious safety issues with the area on the ground. The airfields in the AOR had bad lighting, no radar capability, and damaged runways and taxiways at the beginning of the campaign. Also, the area surrounding some airfields needed to be cleared of mines. Another problem was

limited support including fuel, deicing equipment, and ramp space. CENTCOM with DIRMOBFOR input began to insure more airfields in the AOR were able to meet large scale mobility operations on a 24 hour basis. Runways and taxiways were improved, demining operations began, improvements in ramp space and lighting have occurred. Terminal Radar is also in place at major airfields to allow all weather approaches and aircraft deconfliction. Progress has been made and CENTCOM is continuing to make improvements to the infrastructure.

Another concern were the two C-17 landing mishaps which were both Class A's and occurred in the AOR. The first one occurred in Jan 02 during a night assault landing. The aircraft impacted the ground approximately 2,000 feet short at an excessive sink rate causing damage to the gear and underside of the aircraft. The second mishap occurred in Jul 02 and happened during the day. The crew flew a tight pattern, causing them to be high and overshooting. The aircraft then developed a high sink rate which the crew was unable to arrest causing the aircraft to impact the runway and overstress the gear. Both C-17 Accident Investigation Boards looked into the mishaps and determined that the crews were "getting behind" their aircraft leading to delayed decisions. As a result, both aircraft impacted the ground and sustained damage to the gear and the underside of the fuselage. Both pilots continued to push their approaches beyond a point where a safe go around could have been made.

As a result of these mishaps, AMC began to look at ways to reduce the risk associated with C-17 landings. The mishap investigation boards suggested that if the pilot had a mandatory stabilization point farther back on the approach then a go around could have been initiated in time to prevent the aircraft from striking the ground. HQ AMC/DOV took this recommendation and developed this stabilization point. The Dash 1 now specifies that pilots will be stabilized by 300 ft AGL. This is further defined by being on speed with a variation of +10 to -5 knots of computed approach speed and the flight path vector (FPV) touching the approach path flight angle line (AFPA). The FPV and APFA line must also be within the confines of the intended landing zone. These parameters must be met before the pilot can continue the approach. If these parameters are not met the pilot must initiate a go around which allows sufficient time to accomplish this without touching down.

Even though this is a C-17 specific guidance, all pilots can learn from this. On every approach a pilot should come up with his own stabilization point with definite parameters, such as airspeed, altitude, VVI, etc, that must be met. If the parameters are not met then the pilot will initiate a go around.

AMC is continually working to reduce the risk of operations in the AOR and progress has been made. Yet, there is still room for improvement. AMC is still experiencing airborne hazards, but at a reduced rate. There is still no radar coverage over many portions of the operating area but terminal radars have been installed. New procedures have been added to decrease the risk of flying operations. Flying in the AOR is risky and will stay that way for the foreseeable future. AMC and the rest of the flying community must continually work to reduce risk. We are all in this game together and we all need to continue to look for ways to improve safety. Fly Safe!

Members of the 757th Aircraft Maintenance Squadron (AMXS), Nellis Air Force Base, Nevada and the 8th Airlift Squadron, McChord Air Force Base, Washington load an HH-60 helicopter on to a C-17 Globemaster on 14 January 2003. The C-17 is at Nellis Air Force Base picking up members of the 66th Rescue Squadron, 58th Rescue Squadron, and the 757th AMXS and their equipment for a deployment to an undisclosed location.

Photo by TSgt Robert W. Valenca

Senior Airman Mark Black, a Crew Chief from the 320th Expeditionary Maintenance Squadron, marshalls a C-130E destined for Bagram Air Base, Afghanistan in support of Operation Enduring Freedom on Dec. 18, 2002.

Photo by: SSgt. Matthew Hannen

C-130

Hercules

● **Primary function:** Theater tactical airlift ● **Speed:** up to 417 mph. ● **Dimensions:** Wingspan 132 ft. 7 in., length 97 ft. 9 in., height 38 ft. 3 in. ● **Range:** up to 3,269 miles with cargo ● **18 January 1991**: General Norman Schwarzkopf, Commander, US Central Command, had a plan to defeat the Iraqis quickly and decisively. The essential part of his plan was the rapid, *secret* movement of the XVIII Airborne Corps from where the Iraqis "knew" the Corps was to a location 400 miles to the west. After the coalition air campaign had destroyed Iraq's C3 network, C-130s began moving the Corps. Over the next 13 days, the C-130s airlifted 14,000 troops and over 9,000 tons of equipment to Rafha. The result of this extraordinary tactical airlift operation was that General Schwarzkopf had his forces in the exact place in which he needed them to strike the final blow to Iraq's army.

● **February 24, 1991**: Allied ground campaign begins. General Schwarzkopf's warlords carry out the Gulf War's critical "Left Hook" maneuver, as conceived by General Grant's 1863 Civil War campaign at Vicksburg.

2002 Annual Safety Award Winners

AMC

Safety Officer of the Year

Capt Michael D. Sundsted
6th Airlift Squadron, McGuire AFB, NJ

Capt Michael D. Sundsted is a C-141B Instructor Aircraft Commander and Wing Plans Officer for the Wing Plans and Programs Office, 305th Air Mobility Wing, McGuire AFB, New Jersey. He commands 12 aircrew members in support of DoD worldwide airlift directly supporting the White House, Department of State, Joint Chiefs of Staff and the unified commands.

In 1988 Capt Sundsted attended Marion Military Institute in Marion, AL and was subsequently selected to be a cadet at the US Air Force Academy in June 1989. He graduated with a B.S. in Military History and completed Euro-NATO Joint Jet Pilot Training at Sheppard AFB. He attained the position of Instructor Pilot in the DC-9A. In May of 1998, he completed his M.A. in Management at Webster University in St. Louis, MO. At McGuire AFB, NJ he became a C-141B Airdrop, Air Refueling Aircraft Commander and Special Ops Safety Pilot and Air-land Instructor Pilot. As Chief of 305th Air Mobility Wing C-141B Flying Safety, he created an AMC Benchmark Bird Aircraft Strike Hazard (BASH) Program.

In 2002, he became the 6th AS Training Flight Commander and deployed to Incirlik AB, Turkey, Bahrain and Ali Al Salem AB, Kuwait in support of Operation Enduring Freedom (OEF) where he flew 26 combat and support missions. He was named the 2002 AMC Flight Safety Officer of the Year, 21st AF Flight Safety Officer of the Year, 6th AS Company Grade Officer of the Year and 305th Air Mobility Wing Staff Company Grade Officer of the Year. Capt Sundsted is married to the former Lori Greene of Burkburnett, TX and has one son named Collin.

Flight Safety NCO of the Year

MSgt Dennis J. Caskey

92nd Air Refueling Wing, Fairchild AFB, Washington

Master Sergeant Dennis J. Caskey entered the Air Force in 1982, after three years of service in the Army National Guard. His first assignment was at Langley AFB, VA, as an EC/KC-135 Aircraft Maintenance Apprentice.

In November 1986, his expertise as an aircraft technician led to his selection to the 6th Airborne Command and Control Squadron's flight control diagnostic team.

In September 1990 he was appointed the sole Quality Assurance Inspector for EC-135 aircraft at Langley AFB.

In September of 1992, MSgt Caskey was reassigned to the 380 ARW, Plattsburgh AFB, NY. Here he served as dedicated crew chief for both the KC-135Q and R model aircraft.

In October of 1994, he was transferred to the 92nd ARW Fairchild AFB, WA, where he was given the opportunity to advance as a KC-135 maintenance instructor and Air Mobility Command lesson plan author. In August 1999, he was moved to the 92nd ARW Flight Safety Office. As superintendent, he is responsible for the supervision and continuity of the wing's Flight Safety Programs.

Ground Safety NCO of the Year

MSgt Burrell E. Hancock
728th Air Mobility Squadron
Incirlik AB, Turkey

Master Sergeant Burrell E. Hancock is the Chief of Safety for 728th Air Mobility Squadron, Incirlik Air Base Turkey. In this capacity, he serves as the principle safety manager for Air Mobility Command (AMC) assets assigned to and transiting "The Tip of the Sword" in support of OPERATIONS Northern Watch, Southern Watch, and Enduring Freedom.

Master Sergeant Hancock was born on 29 February 1964 in Neptune, New Jersey. After graduating from Manasquan High School 1982 he entered the Air Force in September 1983 as a Security Policeman. He retrained into the safety career field in 1996.

His career highlights include a Stripes for Exceptional Performers (STEP) promotion to Master Sergeant in 2001, and selection as the United States Air Force Chief of Safety Special Achievement Award Recipient for FY 2000. MSgt Hancock and his wife Rose live in Incirlik AB. They have four daughters: Alex, age 16; Natasha, age 13; Dehli, age 11; and Olivia, age 9.

Weapons Safety Individual of the Year

SSgt David G. York

436 Airlift Wing, Dover AFB, Delaware

SSgt David G. York entered Air Force Basic Training 10 August 1995 and attended Tech school at Sheppard AFB for Munitions Maintenance. In January 1996 he reached his first duty station, Incirlik AB, Turkey where he was a Munitions Storage Crewmember. In May 1997, he began performing Custody Account Monitor duties at Barksdale AFB, LA. In August 1998 he was assigned to Osan AB, Korea where he again performed duties as Custody Account Monitor and earned the Lt General Leo Marquez Outstanding Munitions Maintenance Technician Award. He returned stateside in August 1999 with an assignment to Dover AFB, DE.

Initially his tour at Dover began as a Munitions Storage/Line Delivery Crew Chief. In February of 2001, he was selected to fill the 436th Airlift Wing's Weapons Safety NCO position. He is the only Weapons Safety Professional in AMC serving at the rank of SSgt, and is still assigned to the 436th Safety Office.

"I'm very grateful for the chance the Wing Safety office took when they gave me the job. I know it is usually reserved for those senior to me. This position has greatly increased my knowledge of not only my job, AFSC-wise, but of Airlift as a whole and the accompanying systems. It is quite an honor to be selected for such a prestigious award, and would not have happened without the support, guidance and leadership of the 436th Wing Safety office."

Safety Civilian of the Year

Thomas N. Diveley
305 Air Mobility Wing
McGuire AFB, New Jersey

Mr. Thomas N. Diveley entered Federal Civil Service with the Air Force in November of 1994 as and Air Reserve Technician with the 514th AMW (Assoc), McGuire AFB. In May of 1998 Mr. Diveley was selected to fill the Ground Safety Manager position for the 305th AMW, host wing for McGuire AFB. A 26 year career and retirement with the Burlington County Bridge Commission preceded Mr. Diveley's federal employment.

This is the second time Mr. Diveley has received this prestigious award, the first award coming in 1999.

"It's very gratifying and humbling at the same time to be selected for this award. I can list a number of safety professionals around the country deserving of this recognition and I'm honored to be singled out."

Basic Ergonomics

By: TSgt Bart D. Craven, 19 ARG GSM

What is ergonomics?

It is simply defined as the study of work and how to properly fit the worker to the task to be performed without forcing the worker's body to fit the task.

Improper

Proper

Building workstations, tools, and equipment to fit the work can greatly reduce the stress on the worker, thus reducing or eliminating the change or development of a musculoskeletal disorder (MSD). Ergonomics has become more important in today's work environment due to workers' involvement in the frequent lifting, carrying, and pushing/pulling of loads as well as their participation in quicker paced work (i.e. assembly lines). Since the 1970s there has been a dramatic increase in the number of reported MSD symptoms among workers. These MSD symptoms include tendonitis, carpal tunnel syndrome, and back injuries.

Parts of the Body Affected by MSDs

Neck	**Hands**
Shoulders	**Fingers**
Arms	**Back**
Wrist	**Legs**

Causes of MSDs

Some of the leading causes of MSDs are: exerting excessive forces, repetitive movements, awkward postures, static postures, excessive vibrations, and cold temperatures. Other causes can include particular methods of physical conditioning, or certain medical conditions.

MSDs affect workers in almost every occupation and industry in the nation and in work centers of all sizes. Workers' injuries usually occur during manual handling, the manufacturing process, and/or the heavy lifting and twisting process while holding loads.

How do you know if you have an MSD? Some of the symptoms are listed below.

Symptoms

- ☐ Numbness in the fingers
- ☐ Numbness in the thighs
- ☐ Stiff joints or back pain

If any of your personnel have these symptoms, they should seek medical attention.

Work-Center Design

Changing work-center design and establishing an ergonomics program that encourages personnel involvement in the process are two of the most important actions you can take to prevent MSDs in your work place environment.

Employee Input

Employees are one of the best sources from which to develop ways to correct the problem of MSDs in the work place. Your personnel work in the work-centers every day and they can give you viable solutions to the problem or problems. Examples of personnel suggestions include the following: changing the height of a table, or changing the design for the handle of a tool to relieve repetitive stress on the body.

Areas for Improvement

- **Tables**
- **Chairs**
- **Computer Desk**
- **Computer**
- **Key Boards**
- **Mouse Pads**
- **Key Board Pads**
- **Tools**
- **Manual Lifting**

Tips to prevent MSD's

1. Lift with your legs, not with your back.
2. Don't twist your body while carrying a load.
3. Change jobs stations or operations frequently.
4. Sit with a straight, upright posture while using a computer terminal.
5. Support your arms while using a computer terminal.
6. Use ergonomically designed tools to relieve stress on affected muscles.

Conclusion

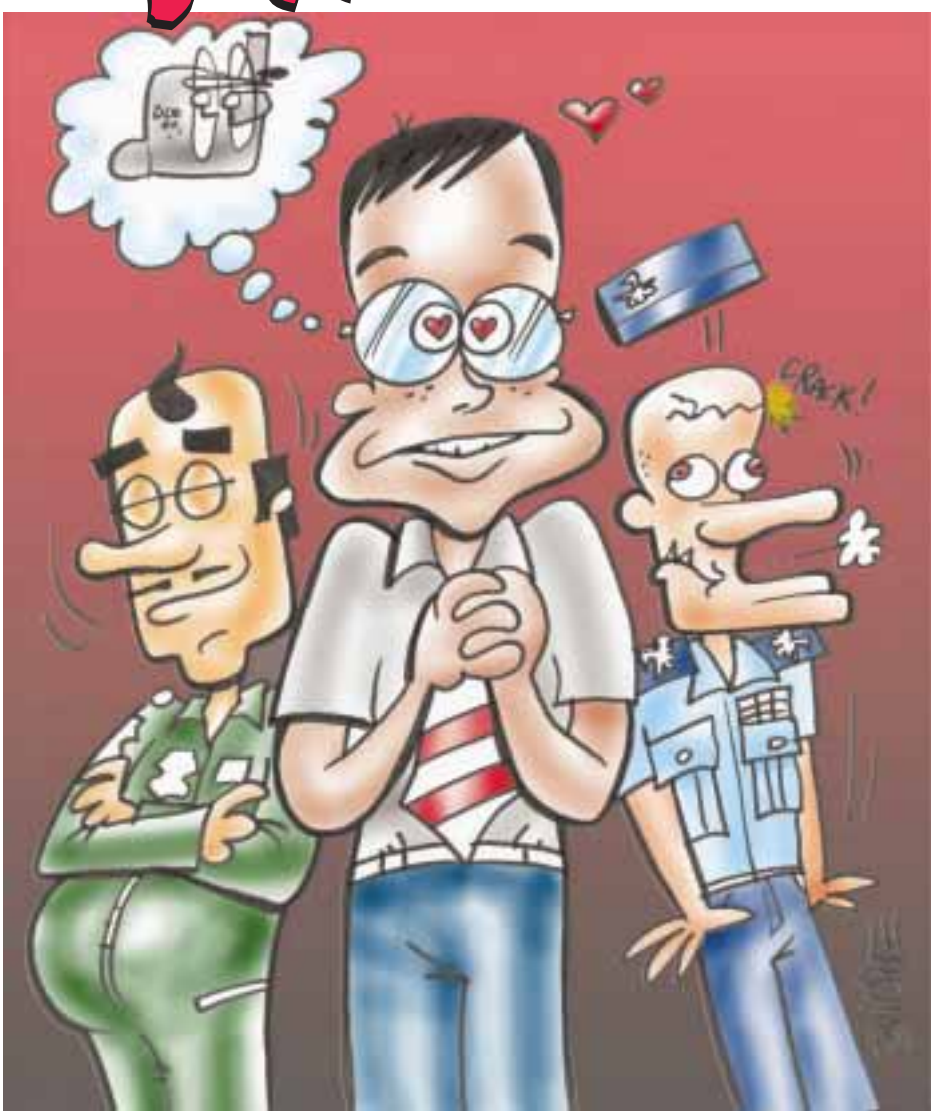
Providing training and education can be valuable tools in your efforts to prevent MSD's from occurring. If you improve worker safety, increase worker comfort, and reduce worker fatigue, then personnel morale will improve and mishap/injury rates will decrease. These actions will increase the productivity of your unit allowing you to have more mission capable personnel.

Risk Factors

- ☐ Force
- ☐ Repetition
- ☐ Awkward Postures
- ☐ Static Positions
- ☐ Quick Motions
- ☐ Vibrations
- ☐ Cold temperatures

C.R. Terror

"Hi-C" Negotiations



C.R. Terror grumbled as his X-type Jag pulled up to the gate and he was motioned through. He had been summoned by his commanding officer to escort General Lockjaw's favorite son, a recent Air Force Academy graduate, on a guided tour of the base and a short shake-down flight.

"Showing a young whippersnapper around! What balderdash! I have important things to do! My crew needs me! The Air Force need me! The world needs me!" he declared as he pulled into the nearest parking space. A long black sedan with an unfamiliar flag on each front fender had been pulling into the same spot and the driver shouted and shook his fist at the Petulant Pilot. Terror strode into the building, clouds of smoke and angry words billowing around his head.

"Sir!" said a rather dour looking man at the entrance. "This is a non-smoking building!"

"Who is smoking?" retorted The Bulging Bastion of Bluster. "Never inhale the stuff myself!"

Terror looked around for his assignment - the young fruit of Lockjaw's loins. He spied a young, dark-haired man standing in front of a "Welcome Outer Uzraponistan" sign outside the men's facilities and gave him what Terror hoped was a hearty wave.

"There you are!" Terror muttered as he straightened his uniform and did a quick polish of his chrome-plated command pilot wings. He lumbered across the lobby and took the hand of the young man, pumping it vigorously and mumbling a bit about being glad to meet him, hoping he enjoyed himself, and a general "Let's get on with it."

The young man stared at him with wide eyes and a blank stare. "Not much of a family resemblance," thought the Rotund One, "but the stare is the same!"

"Come on! Let's break the surly bonds," he said as the young man continued to stare at him blankly.

Terror threw a beefy arm around the youth in question and pointed to the plane. "Let's take 'er up!"

The young man's gaze followed his finger to the plane and he began shaking his head vigorously. "Yes, yes," he said with an accent Terror didn't recognize.

"Must be from out of town," mumbled the Terror as the young gentleman thrust a leather briefcase into the arms of the Round Mound of Renown and started hurriedly toward the plane. "What am I, a valet? I am the world's most Terrorific Pilot, young man! Your father is so concerned for my welfare that he won't even sleep until he knows I have landed!" Terror said as he followed his charge to the C-130 where his crew awaited.

He sat the briefcase inside the plane and made his way to the cockpit where he found the young man staring at Sammy, while Sammy returned the favor.

"My name is Sam," said his Co-Pilot Comrade. He held out his hand to the boyish passenger who stared at him with what looked suspiciously like awe.

The young man grabbed for Sammy's hand and pumped it vigorously. "Uncle Sam!?"

"Uhhhh…no," Sammy said with a laugh, "I'm nobody's uncle!"

"No?" said the young man with a crestfallen expression.

"No!" said Sammy taking his seat beside the Terror of the Skyways.

For once, the takeoff went off without a hitch and as his crew let out a long sign of relief, The Addled Aeronaut called back to his young companion. "We will circle the base and you can have a go at the controls!"

"How about something to drink, Sammy? I could use a cup of coffee," declared Terror.

"Sure, boss!" Sammy answered as he rose to leave the cockpit. "Want something to drink….ummmm…. Lockjaw? Coffee? Coke?"

The young man stared at Sammy with the same awed expression, "Coca Cola!" he said in slow reverential tones.

"The kinds of kids they let graduate today!" Sammy muttered under his breath as he made his way back to the coffee.

Sammy returned with hot coffee in both hands and a Coke can tucked into his pocket, watching his feet carefully to make sure he didn't trip with his cargo. As Sammy gestured to indicate the Coke can in his pocket, the young man's eyes widened.

"Coca Cola," he cried and threw his arms around Sammy.

"Hold it!" Sammy said. But it was too late. The coffee had left the cups and floated momentarily in the air before landing with scalding accuracy on the hand of their passenger. Just as accurately, the young man opened his mouth and hit High C and held it. At the same pitch came a string of unintelligible, but violently spoken words. At least Sammy assumed they were words. Sounded a lot like mumbo jumbo to him. The meaning behind it, however, was crystal clear and Sammy wondered if the young man hadn't just cursed his children and his children's children!

Terror struggled to his feet to help his youthful charge and in doing so, his size 12 custom-made alligator flight boots landed squarely in the geographical center of the passengers left foot. The young man looked up at Terror, cried out (not reaching even close to a proper High C this time), and began to beat on the back of Terror's neck with the only thing now available to him - a Styrofoam coffee cup.

Sammy grabbed him from behind and the man released an even longer and more violent stream of gibberish accompanied by several balls of spit aimed at the Petulant Pilot.

The radio crackled with the voice of the tower. "Major Terror? Terror??? What is your status?"

Both Sammy and Terror looked at the controls. The *pilotless* controls. And both rushed for their seats at once.

Their young passenger had the misfortune of being between the two pilots and their seats. He hit the floor about the time that he hit High C - again!

Thinking his eardrums just about to explode, the Skyways Sultan radioed the tower. "Tower? We need emergency clearance. The General's son needs medical attention. And quick!" he yelled.

"The General's son? What about the General's son? There is

nothing wrong with the General's son. He is standing beside me right now! What is that infernal screeching!"

"He's where? Then who IS this yahoo?" he demanded, looking up at the young man. "And why is he on my plane?"

"What YOU have, Terror, is an Outer Uzraponistan diplomat! The embassy thinks we kidnapped him! You have caused an international incident, you moron!"

"He is perfectly fine, Col. Fang!" said the Flatulent Flyboy as Sammy rolled his eyes beside him. "We took him for a ride to show him good ole' American engineering and firepower!"

"Then why does he need medical attention!?" Col. Fang roared.

"Couldn't hold his coffee," declared the Rotund One.

When the plane landed, Terror and his long-suffering co-pilot lead the young diplomat down the steps to his waiting delegation - and Col. Fang.

"Terror!" began Col. Fang, his face red. He had a large, bulging vein on the side of his neck which pulsed with a very military beat.

"Colonel," boasted Terror. "I am proud to say that Sammy and I have just negotiated a contract with the Ambassador. He wants to buy a fleet of C-130s! Don't thank us now! We will accept no reward," he said magnanimously. "Only our country's appreciation and a small monthly stipend!"

Col. Fang stuttered and turned to the ambassador. "A contract for planes?"

"Yes, Colonel," said the young diplomat. "It occurred to me that if these planes could survive Major Terror, they could survive anything!"

Visibility in the DESERT

By Capt. Eric Vitosh, 22ARW/SEF, McConnell AFB, Kansas

The first thing that comes to mind when you think of the Arabian Peninsula is probably the weather; it's hot and dry. The 120+ degree temperatures reinforce that when you arrive in theater and step off the plane into a blast furnace. If you can bear to look up into the sky, you'll notice that there are no clouds. As you contemplate what it will be like to fly in this environment, you're tempted to believe that if it doesn't rain and there are no clouds, then visibility must be great all the time. Then you do go out to fly and the mission becomes as routine as the weather — or does it? As we travel around the world to many different places, we have to make sure we are familiar with our

surroundings. In Saudi Arabia, one of the most dramatic weather phenomena to be experienced is the shamal and its effect on flight operations can be quite significant. Shamal is an indigenous word describing the rapid onset of winds in the desert and the ensuing dust storm. A shamal seems to pop up out of nowhere and leaves a coating of sand everywhere. Roughly translated, the word means "north wind." I recently got to experience this phenomena first hand during my tour at Prince Sultan Air Base (PSAB).

Early in the day PSAB weather forecasters, through atmospheric modeling, were aware of the potential for strong surface level winds. A shamal had formed in the Tigris Euphrates river valley in southern Iraq and was moving south. Although the morning forecast did allude to the coming storm, the early indicators were not that alarming. In fact, the forecast for the anticipated recovery window showed northerly winds, aligned with the runway, gusting to 25 knots with some associated restrictions to visibility due to blowing dust. With that information in hand, aircraft were launched to conduct the day's Operation SOUTHERN WATCH (OSW) mission as the USAF weather shop closely tracked the evolving weather pattern. As the day unfolded, observed winds continued to intensify and the dust plume became large enough to identify and track with weather satellite imagery. Based on the updated information and revised forecast, the OSW mission was terminated early and all aircraft were directed to return to base. As aircraft turned back to PSAB, a number of unrelated incidents occurred which complicated a seemingly routine recovery. At the beginning of the recovery, a British F-3 Tornado declared an emergency for an engine problem and received vectors direct to a military field in Kuwait. The F-3 flew a single engine approach, but had to execute a missed approach because the dust storm completely enveloped the runway when it was in the radar pattern.

Diverting will make you successful; flying past your bingo can make you dead.

Luckily, after several tense moments, the stricken Tornado was able to accomplish a single engine divert and successfully recovered to the international airport. The airport was near the gulf and, therefore, somewhat protected from the northerly winds and low visibility. As a result of this, there was a slight delay for recoveries, which allowed the storm to progress that much closer to PSAB while aircraft were still airborne. In an attempt to "beat the weather home," most of the OSW package, both heavies and fighters, arrived over the field at almost the same time. Although the revised forecast initially showed deteriorating visibility for the short-term, followed by clearing, it became evident to the Supervisor of Flying (SOF) that the effects of this dust storm were becoming much more persistent. As the aircraft began stacking up awaiting clearance to commence an approach, it looked as if the visibility could deteriorate below minimums prior to getting everybody back on the ground. Based primarily on fuel considerations, the SOF immediately sequenced the fighters hoping to at least get them on the ground before the worst of the shamal arrived. He planned to stack up all the heavies in a holding pattern to await further approach clearance when visibility increased. Since heavies typically have plenty of fuel, this seemed like the logical plan, right? As ESPN commentator, Lee Corso, says, "Not so fast my friend."

Unfortunately, the tankers had been directed to dump fuel prior to returning to

PSAB and they had complied. This routine directive had been issued either out of complacency (due to nearly continuously clear weather over the preceding several months) or a complete lack of situational awareness regarding field conditions (unaware of the magnitude of the approaching storm). Without sufficient fuel reserves, it began to look as though some of the heavies might have to divert.

Fortunately, all but one aircraft were able to land on their first approach. They were able to sneak in between strong gusts when visibility improved just enough to allow aircraft to land from approach minimums. The last aircraft, an E-3, finally landed after executing missed approach procedures on three preceding precision approach radar attempts. As I reflected on what had happened, I realized that everyone might benefit from the lessons we all did not necessarily learn that day, but rather were lessons we all needed reinforced:

1. A single, well thought out plan needs to have at least one alternate course of action. On this day the plan was to launch the fleet, accomplish an operational mission while keeping an eye on weather, and then bring the fleet home early if conditions warranted. Unfortunately, sometimes your plan depends on the success of a lot of other people's plans. If a few links, or sometimes even just a single link, in that chain of events fail, your plan may also fail. So the inevitable question is "What's your backup plan?" In this case it was a divert option. The U.S. government spends a good bit of money maintaining an airfield not too far from PSAB for the sole purpose of using it as a divert airfield. Even though it wasn't used that day, the option was ready and available.

The key is to plan ahead, use all the resources available, and live to fly another day.

2. Know your forecast and get updates. As military pilots, we are all aware of the standard weather briefing forms, charts, and symbology. What about the unfamiliar METAR (hourly reports) and TAF (Terminal Aerodrome Forecast)? Would you understand a forecast that read 0105G25KT 3BLDU (3 miles visibility with blowing dust)? It is to your benefit to make sure you are familiar with terminology that is routinely used at your operating location. It is also helpful to remember that anything can happen in the 4 or 8 hours after you have departed. Hard to believe, but the forecasters may miss the mark once in a while.

3. Set and adhere to your minimums. Don't fly past your predetermined bingo. You spent a considerable amount of time planning your sortie while your groundspeed was zero. The plan made sense then, so stick with it. Divert is not a four letter word. Diverting will make you successful; flying past your bingo can make you dead.

4. Share information. If you find out the weather ahead is bad or deteriorating, let your buddies know and take the time to pass Pilot Reports (PIREPs) to the forecasters and the SOF as well. They will appreciate it, and someday you might appreciate the fact that someone else took the time to send a PIREP that helped you. And don't forget to share other critical mission information as well.

Everything turned out fine the day that shamal passed through PSAB. There were some miscommunications and some mistakes made that day, but name one day when that doesn't happen. The key is to plan ahead, use all the resources available, and live to fly another day.

Flying Hour Milestones

10,000 Hours

105 AW/SE, Newburgh, NY
CMSgt Leon W. Hipkins
CMSgt Louis B. Medine

8,500 Hours

105 AW/SE, Newburgh, NY
SMSgt Michael E. Cook
SMSgt Cornelius Cronin

7,500 HOURS

6 ARS/SE, Travis AFB, CA
MSgt Jose Moya

99 AS, Andrews AFB, MD
SMSgt Vernon A Hurston

105 AW/SE, Newburgh, NY
SMSgt Reginald F. Denis

167 AW, Martinsburg, WV
SMSgt Douglas G Hilliard
SMSgt Steven R McDonald

758 AS, Coraopolis, PA
MSgt Gary Steele

6,500 HOURS

6 ARS/SE, Travis AFB, CA
MSgt Charles Reed

105 AW/SE, Newburgh, NY
Brig Gen Dana B. Demand
Lt Col Keith G. Brown
SMSgt Murel J. Lovgren
MSgt Donald M. Clark
TSgt John C. Miller

167 AW, Martinsburg, WV
Col Roger L Nye
Maj Robert S Messerli
CMSgt Billy E Gillenwater
MSgt Roland E Shambaugh

171 ARW, Pittsburg IAP, PA
Col Wayne A Gallo

931 ARG, McConnell AFB, KS
Lt Col William M Brantley

5,000 HOURS

6 ARS/SE, Travis AFB, CA
MSgt Tony Edwards

99 ARS/DOT, Robins AFB, GA
Maj Kevin S Guneman
SMSgt Jefferson R Whited

105 AW/SE, Newburgh, NY
Col Kevin F. Dannemann
Lt Col Jeffrey F. Arndt
Lt Col John P. Healy
Lt Col Timothy J. Labarge
Lt Col Bernard B. Mallon
Lt Col Gary Stopa
Maj Thomas M. Beirne
Maj John M. Bonomi
Maj Stephen P. Branche
Maj Steven D. Grant
Maj Maurice G. Grosso
Maj Erik K. Hayden
Maj Edward H. Krafft
Capt Edward J. Nevin
SMSgt Edward Barrett
SMSgt Donald M. Macinnes
SMSgt Angelo Marino
SMSgt John J. Pulaski
MSgt Bryan Bollinger
MSgt Pedro L. Feliciano
MSgt Kyle R. Geick
MSgt Peter P. McDermott
MSgt Robert G. Rogers
TSgt William S. F. Miller

137 AW, WILL ROGERS ANGB, OK
Maj Thomas W Ryan

167 AW, Martinsburg, WV
Lt Col Kevin R Miller
Lt Col Steven R Truax
Maj Brian M Blackford
Maj Brian D Cox
Maj Richard M Robichaud
Maj Gerald C Stuck
Maj Peter O Westendorff
Capt Jeffrey A Nichols
MSgt Craig J Harrington
MSgt Richard N Talbott
MSgt James L Blackford
MSgt Douglas S Ferrell

319 OG, Grand Forks AFB, ND
SMSgt Jeffrey L Potter

3,500 HOURS

6 ARS/SE, Travis AFB, CA
Maj Charles Melnick
Maj Christopher Rogowski
Capt Dave Morisey
SSgt Rafael Galvez
SSgt David Olson

18 ARS, McConnell AFB, KS
Maj Eric T Anderson
Maj Theodore S Mathews
Maj Theodore P Moore
1Lt Mark A Villacis

99 ARS/DOT, Robins AFB, GA
Lt Col Barry N Dowell
Lt Col Robert E Martin
Lt Col John M Narron
Lt Col Bryan T Riba
Lt Col Michael S Smith
Lt Col David A Sprague
Maj Gregory C Scheer
TSgt Melton F Brewer
TSgt David M Keller
SSgt David A Coleman
SSgt David F Stadnicki

105 AW/SE, Newburgh, NY
Lt Col Sandy J. Krigel
Lt Col Theodore R. Lemieux
Lt Col John O'Connell
Lt Col Howard N. Wagner
Maj Kenneth M. Appezzato
Maj Joseph E. Arcate
Maj David M. Christoff
Maj William M. Duskas
Maj Perry K. Elvin
Maj Matthew R. Godfrey
Maj Jonathan D. Goldstein
Maj John H. Kahrs
Maj Frank Lopiccolo
Maj Mario R. Martins
Maj Robert P. McGrath
Maj Timothy F. Morgan
Maj Thomas K. O'Farrell
Maj Omar Velasquez
Capt Christopher J. Lapenna
Capt Jon C. Wozniak
SMSgt Anthony R. Capaldi
SMSgt Michael B. Casper
SMSgt Dale A. Hipkins
SMSgt Stephen J. Kish
SMSgt William F. Muller
MSgt Gerardo Balsa Jr.
MSgt George W. Brehm
MSgt Timothy K. Ginley
MSgt Peter G. Inglis
MSgt Ruben Osorio
MSgt Daniel J. Schippers
MSgt Robert C. Schwarzler
TSgt Nicholas R. Brehm
TSgt Peter P. Matschulat
TSgt Wayne A. Robinson

109 AW/SE, Scotia, NY
Maj Lloyd East
Maj Frank Mendicino
Maj Bill Smith
Maj Mike Steindl
Capt Glenn Dubois

167 AW, Martinsburg, WV
Col William R Gain
Lt Col Christian P Cunningham
Lt Col Eric W Vollmecke
Maj Stuart W Brown
Maj Jeffrey W Burkett
Maj Jacob P Calo
Maj Michael D Langley
Maj Shaun J Perkowski
Maj James R Powell
Maj Randall M Richter
Maj Mark J Ruckh
Capt Curtis E Garrett
Capt Adam B Thomas
SMSgt Donald L Kees
MSgt Cleatus J Bell
MSgt John D Ratcliffe

171 ARW, Pittsburg IAP, PA
Lt Col Mark A Wittmayer
Maj David M Irvin
Maj Jorg A Kaltenegger
Maj Brian W Krawchyk

185 AS, Will Rogers ANGB, OK
MSgt Brian A Brindle

758 AS, Coraopolis, PA
Maj John DeMaye

912 ARS, Grand Forks AFB, ND
Maj Erik J Brumskill

913 AW/SE, Willow Grove ARS, PA
Maj James R Devere
Maj Lawrence C Weisman
Capt James R Ruggiero
MSgt Charles W McNeill

Milestones

2,500 HOURS

6 ARS/SE, Travis AFB, CA
Maj John Millard
Capt Eric Delwiche
Capt Vince Durant
Capt Charles Haley
SSgt Dom Schaller
SSgt Charles Schmied

18 ARS, McConnell AFB, KS
SrA Mark E Johnson

99 ARS/DOT, Robins AFB, GA
Lt Col Royce E Eves
Lt Col Timothy J Rose
Maj Gene C Lee
Maj Brian P Mclaughlin
Maj Shawn E Teagan
Maj Eric J Waguespack
Maj Mark W Wesson
Capt Ronald K Dancy
Capt Pamela M Freeland
TSgt George T Hewitt
TSgt Mark W Yandell
SSgt Eric S Hicks

105 AW/SE, Newburgh, NY
Lt Col Vincent J. Zaccardi
Maj Patrick T. Cassidy
Maj Glendon A. Fraser
Maj Glen E. Gentile
Maj Patrick F. Lasella
Maj Dieter Lucas
Maj Brian A. Nealis
Maj Kenneth L. Rosenquest
Maj David C. Terwilliger
Capt Wilbur C. Biggin
Capt Juli I. Brown
Capt Randall D. Casement
Capt Douglas R. Morton
Capt John W. Tresler
SMSgt Stephen W. Krysty
SMSgt Luc J. Rancourt
SMSgt Michael B. Scalard
MSgt Brian L. Avery
MSgt Andrew E. Britt
MSgt Edward J. Dick
MSgt Steven G. Disilvestro
MSgt Hubert G. Ingram
MSgt Bert E. Schoberle
MSgt Timothy E. Tynyk
MSgt John P. Zylstra
TSgt James J. Buccellato

167 AW, Martinsburg, WV
Lt Col William D Clark
Lt Col Edwin B Yost
Maj John L Cook
Maj Solon J Lane
Maj David M Kaplan
Maj Scottie L Winters
Capt Edward S Bishop
Capt Christopher T Lee
Capt Jonathan H McCullough
Capt Charles C Nasser
Capt Carla D Riner
Capt Mark S Rutter
Capt Jeffrey D Thomas
1Lt Anthony M Cianciolo
1Lt Howard M Gorberg
SMSgt Raymond G Sheldon
MSgt Terry G Miller
TSgt Joseph D Daniels
TSgt Charles S Wachter

171 ARW, Pittsburg IAP, PA
Lt Col Sean D Boyle
Lt Col Alan K Hodgdon
Maj Mark K Casey
Maj Keith L Gailey
Maj David C Jackson
Maj John A Kucinski
Maj Jeffrey W McKee
Capt Richard S Brown Jr
Capt David W Micklo
MSgt John A Buckwalter Jr

185 AS, Will Rogers ANGB, OK
Capt Richard L Trotter

758 AS, Coraopolis, PA
TSgt David Caldwell

913 AW/SE, Willow Grove ARS, PA
Capt Kyle T Fontenot
MSgt Leonard J Gill
TSgt Ramon L Feliciano
TSgt William O Root

1,500 HOURS

6 ARS/SE, Travis AFB, CA
Capt Rob Allmart
Capt Craig Babbitt
Capt Nathan Bertman
Capt Mike Brown
Capt Paul Bruner
Capt Ryan Elofson
Capt Jason Helton
Capt Scott Sullivan
Capt Shane Turner
Capt Christopher Watson
Capt Brent Westbrook
SSgt Luis Acevedo
SSgt John Adtkins
SSgt Justin Campbell
SSgt Alexandra Minnihan
SSgt Steven Novicki
SSgt Phil Orona-Edwards

99 ARS/DOT, Robins AFB, GA
Lt Col Barbara L Mossl
Capt Fred R Cunningham
Capt Linden A Fravel
Capt Waynetta R Gentry
Capt Veronica P Raffetto
Capt Eric J Rockhold
SSgt John W Rickenbach
SrA Douglas P Boren

105 AW/SE, Newburgh, NY
Maj Stuart J. Greenwald
Capt William M. Bath
Capt Dave A. Harding
Capt Philip J. Leone
Capt Charles G. Ohrel
Capt Franklin Rodriguez
Capt Margaret A. Stern
Capt Linda S. Wheeler
SMSgt Damiano N. Basile
SMSgt Douglas C. Halye
MSgt Joseph O. Caulfield
MSgt David A. Groucher
MSgt Daniel J. Mahoney
MSgt Roger E. McNellie
MSgt Robert O. Munoz
TSgt Dwight R. Flemming
TSgt David L. Pink
TSgt Eric E. Schwartz
TSgt Adam D. Slutskin
TSgt Stephen J. Walsh
TSgt Henry W. Windels
SSgt Steven E. Reside

109 AW/SE, Scotia, NY
Maj Dennis Hesse
Maj Cheryl Olszowy
Capt Oneil Barnes
Capt Leroy Kinlocke
SSgt Tim Macaulay

166 AW, New Castle, DE
TSgt Jeffery Wilson

167 AW, Martinsburg, WV
Capt Christopher S Caldwell
Capt Andy R Carattini
Capt David D Howes
MSgt Brian C Hensell
MSgt Barry W Shatzer
MSgt Luweldon T Smith
TSgt Kenneth M Payne
Sgt Mark A Lineberg
Sgt Robert J Seaver
Sgt Troy E Smith

171 ARW, Pittsburg IAP, PA
Capt Michael T Koma
Capt Darren P Lannan

185 AS, Will Rogers ANGB, OK
Capt Jason P Rozneck
SSgt Timothy W Brown

758 AS, Coraopolis, PA
Capt Gregg Rich
TSgt Kevin George
TSgt Scott Noriega

911 AES, Coraopolis, PA
Maj Carl Bishop
Maj Karen Ghrist
CMSgt Hobert Wilson
SMSgt Jeffrey Harris

913 AW/SE, Willow Grove ARS, PA
TSgt Jamil I Bashir
TSgt Troy D Cochran

Trouble Candy

"Mommy! Mommy!" she heard 4-year old Chyna call from the next room. "Got candy, Mommy! Got candy!" Jane looked up to see her child trot into the room, blonde hair shining in the sun streaming through the kitchen windows and red food dye surrounding her lips and fingers.

"What candy?" Jane thought with a fluttering of fear. "Chyna! Show Mommy the candy!"

Chyna opened her chubby hand and there, torn and glistening, was the silver wrapper of her over-the-counter sinus medication.

"Ohh, no!" she cried as she reached for the phone to call 911.

"This happens much more often than we would like, " said the base hospital physician as Chyna was being treated. "Children see you get candy or gum all the time from your purse. So they think that is where candy comes from. If you also carry medicines, it is very easy for a child to mistake them for a treat. If you have medicine in your handbag, keep it out of the reach of your very inquisitive child," he said, patting Chyna's head. "Next time, you may not be so lucky!"

Waxing Poetic

Kathryn stood in the bathroom door admiring the new tile floor that had just been installed over the weekend. She had spent the morning cleaning up after the workmen - scrubbing and waxing the tile floor to an immaculate shine. But, in fact, she had spent too much time! She would be late for their dinner at the Officer's Club and she desperately needed a long shower.

She gathered up a towel from the linen closet and reached in to turn on the shower. She wiped her hand, wet from the shower spray, on a hand towel and brushed her hair - pinning it up off her neck. She sighed in anticipation of the upcoming shower, grabbed a bottle of shower gel and turned to step in.

Instead she found herself gazing at the ceiling, her ears ringing with the crack of bone as she hit the floor.

After her husband had heard her cries and Kathryn was taken to the emergency room for treatment, she lay uncomfortably on the hospital bed with her leg in a large, unwieldy cast.

"You are a lucky woman, Kathryn," said the orderly, shaking his head. "We see many accidents every year from slippery bathroom floors with much more serious consequences. So, instead of signing my name on your cast, I am going to write a phrase I want you to repeat over and over again: I will never wax the bathroom floor again!"

She groaned, looking down at her leg. "I will never wax the bathroom floor again!"

Birthday Batteries

"Be sure to change the batteries in your smoke alarm every year!" George heard the anchorwoman say as he poured his orange juice. "A good way to remember is to do it on your birthday!"

"You gonna change the batteries, Dad? Today's your birthday, you know," his young son called from the kitchen table.

"Yeah, yeah! I'll get around to it!" he said as he finished the morning newspaper and prepared to leave for his flight.

"Fireman Frank told us we had to have our parents check the batteries," he said solemnly. "Fireman Frank came to our school yesterday. He gave us neat stuff!"

"Ok! Ok!" muttered George, sighing as he looked at his watch. "We can't disappoint Fireman Frank now, can we?"

He searched through the kitchen drawers for fresh batteries and climbing the stairs, changed the battery in the smoke alarm outside the children's bedrooms.

"Satisfied?" he said as he looked down at his son.

"Yep!"

George remembered the smile that his son had given him when - 18 hours later- he stood in front of his smoldering home with his family. A candle had been left burning near a recliner, eventually catching it on fire. But his son, hearing the smoke alarm, had awakened his parents and his family had escaped without injury.

"Pretty bad birthday, huh, Dad?" he heard his young son say.

He looked at his family - unharmed and together. "Not true, Jimmy," he said. "I got the best birthday present ever!"

It Can Happen To You

The ringing of the office telephone interrupted my train of thought. It was TSgt Jones, the safety representative for the supply squadron. One of the workers had injured his back. Quickly, I gathered my things together and was out the door. When I arrived, he greeted me at the door and took me to see George, a 33 year-old man who worked in the receiving section. We found George sitting in the break room, rubbing his back. After the introductions were out of the way, he began to tell his story. He had been working in the section for about two years. When the injury occurred, he was bending at the waist and reaching over into a bin (large wooden box) for a spool of wire. As he picked it up, he felt a twinge in the center of his lower back. He continued working until it started to tighten up a few minutes later. That's when he informed his supervisor and I got involved. As I talked to him, he said he often lifted spools of wire from the bins. When I asked how much they weighed, he estimated 30-40 pounds. Later, I found the spools weighed 94 pounds! Several important keys to safe lifting were violated here. The first came into play when the bin was designed requiring workers to bend at the waist to extract stock. Someone should have identified this poor design. It's called identifying safety hazards within the work area. The next occurred when George misjudged the weight of the spool. You should always know what you're lifting and never exceed your physical limitations.

Note: This mishap really happened. In my twenty-one years of investigating lifting mishaps, this is the only one in which the victim was lifting more than 40 pounds. That's right, 40 pounds. Whether you're carrying tool boxes or reams of computer paper, it can happen to you. Everyone should constantly be on the lookout for situations which could cause injury. Supervisors should ensure safety lifting procedures are briefed and practiced.

The Black Marble

Recently, one of our maintainers was descending the ladder from the flight deck of a C- 141 when his foot slipped off one of the rungs, causing him to lose his balance and fall. As he did, his forearm struck the corner of a toolbox resulting in a nasty laceration. Those of you familiar with these ladders can attest to the fact the distance from flight deck to aircraft floor isn't that great, but sometimes it doesn't take much. While inspecting the mishap scene, I noticed the non-skid material on the ladder rungs was worn away. That non-skid material didn't get in the condition it was in overnight. The aircraft had to leave its last stop with it in that shape. No one bothered to write it up in the forms. (It's written up now.) Our accident victim also admitted to being in somewhat of a hurry which he said may have contributed to the mishap. It has to be considered a contributing factor along with the lack of non-skid on the ladder rungs.

Safety experts tell us 88 percent of all mishaps are the result of unsafe acts. Sure, I know some of you've been up and down these ladders hundreds of times without incident and you've begun to think it won't happen to you. I tried that same approach when I first entered the safety career field. My first supervisor quickly explained his opinion of my rationale. He said you can place a black marble into a bowl of white marbles, with each marble representing each time you take a shortcut or perform an unsafe act. You then begin to draw out the marbles one at a time until you get to the black marble which represents the mishap. This is much the same as playing Russian roulette. Regardless of whether you're using a ladder, maintenance stand, forklift, or k-loader, you never know when the black marble will be next.

Deployment on the C-17

Members of the 757th Aircraft Maintenance Squadron, 57th Equipment Maintenance Squadron, and 15th Reconnaissance Squadron, Nellis Air Force Base Nevada, await take off of a C-17 Globemaster III deploying to an undisclosed location on 25 January 2003.

Photo by Airman 1st Class Brian P. Ferguson